

I claim:

1. An apparatus for processing telephone numbers, comprising:
an area code processor having
means, responsive to called party information, for producing a list of telephone
5 numbers; and
a caller interface, in communication with a calling party and the area code processor,
having
means for monitoring call initiation signals,
means, responsive to the monitoring means, for receiving called party information, and
10 means, responsive to the producing means, for selecting a target telephone number
from the list of telephone numbers.
2. The apparatus for processing telephone numbers of claim 1, wherein the call
initiation signals contain an activation sequence.
3. The apparatus for processing telephone numbers of claim 2, wherein the
15 activation sequence comprises a code character selected from the group
consisting of # and *.
4. The apparatus for processing telephone numbers of claim 1, wherein the
receiving means comprises means for associating identification information with
the calling party.
- 20 5. The apparatus for processing telephone numbers of claim 4, wherein calling
party identification information includes calling party location information.
6. The apparatus for processing telephone numbers of claim 5, wherein the list of
telephone numbers comprises valid telephone numbers in area code service
areas within a predetermined scope responsive to calling party location
25 information.

7. The apparatus for processing telephone numbers of claim 6, wherein the list of telephone numbers comprises valid telephone numbers in area code service areas within a predetermined expanded-scope responsive to calling party location information.

5 8. The apparatus for processing telephone numbers of claim 6, wherein at least one pre-designated area code service area is considered to be within the predetermined scope.

9. The apparatus for processing telephone numbers of claim 8, wherein at least one pre-designated area code is a toll-free service access code.

10 10. The apparatus for processing telephone numbers of claim 1, wherein the producing means comprises a telephone number database.

11. The apparatus for processing telephone numbers of claim 10, wherein the telephone number database comprises dialing rules.

12. The apparatus for processing telephone numbers of claim 10, wherein the telephone number database comprises a calling party dialing list.

13. The apparatus for processing telephone numbers of claim 1, further comprising means for associating identification information with the calling party.

14. The apparatus for processing telephone numbers of claim 13, wherein the identification information associated with the calling party comprises calling party location information.

15. The apparatus for processing telephone numbers of claim 14, wherein the producing means is further responsive to dialing rules, a calling party dialing list, and the identification information associated with the calling party.

16. The apparatus for processing telephone numbers of claim 10, wherein the telephone number database comprises any of information on valid area codes, information on the geographical areas associated with valid area codes,

sub a² }
cont } ~~information on valid exchanges within valid area codes, and information on geographical areas associated with valid exchanges.~~

17. The apparatus for processing telephone numbers of claim 16, wherein the telephone number database further comprises dialing rules.

5 18. The apparatus for processing telephone numbers of claim 16, wherein the telephone number database further comprises a calling party dialing list.

19. The apparatus for processing telephone numbers of claim 16, wherein the telephone number database further comprises information on valid telephone numbers within valid exchanges.

10 20. The apparatus for processing telephone numbers of claim 16, wherein the telephone number database further comprises information on the relationship of each of a plurality of area code service areas.

21. The apparatus for processing telephone numbers of claim 10 wherein the producing means further comprises means for updating the telephone number database.

15

22. The apparatus for processing telephone numbers of claim 1, further comprising a call generator, in communication with the caller interface and a telecommunications network, having means, responsive to the selecting means, for initiating a call to the target telephone number.

20 23. An apparatus for processing telephone numbers, comprising:
an area code processor, and

a caller interface, in communication with a calling party and the area code preprocessor,

sub a³ }
cont } having
means for monitoring call initiation signals, and

25 means, responsive to the monitoring means, for receiving called party information and calling party identification information,

sub-a 3
cont

wherein the area code processor comprises means, responsive to the called party information and calling party identification information, for producing a target telephone number.

24. The apparatus for processing telephone numbers of claim 23, wherein the calling party identification information includes calling party location information.

25. The apparatus for processing telephone numbers of claim 23, wherein the producing means comprises a telephone number database.

26. The apparatus for processing telephone numbers of claim 25, wherein the telephone number database comprises dialing rules.

27. The apparatus for processing telephone numbers of claim 26, wherein the telephone number database further comprises a calling party dialing list.

28. The apparatus for processing telephone numbers of claim 27, wherein the producing means is further responsive to the dialing rules and the calling party dialing list.

29. The apparatus for processing telephone numbers of claim 23, further comprising a call generator, in communication with the caller interface and a telecommunications network, having means for initiating a call to the target telephone number.

30. An apparatus for processing telephone numbers, comprising:

an area code processor having

means, responsive to called party information and calling party identification information, for producing a list of telephone numbers; and

a caller interface, in communication with a calling party and the area code processor, having

means for monitoring call initiation signals,

means, responsive to the monitoring means, for receiving the called party information
and the calling party identification information, and
means, responsive to the producing means, for selecting a target telephone number
from the list of telephone numbers.

- 5 31. The apparatus for processing telephone numbers of claim 30, wherein the calling
party identification information includes calling party location information.
32. The apparatus for processing telephone numbers of claim 30, wherein the
producing means comprises a telephone number database.
33. The apparatus for processing telephone numbers of claim 32, wherein the
10 telephone number database comprises dialing rules.
34. The apparatus for processing telephone numbers of claim 33, wherein the
telephone number database further comprises a calling party dialing list.
35. The apparatus for processing telephone numbers of claim 34, wherein the
15 producing means is further responsive to the dialing rules and the calling party
dialing list.
36. The apparatus for processing telephone numbers of claim 30, further comprising
a call generator, in communication with the caller interface and a
telecommunications network, having means for initiating a call to the target
telephone number.
- 20 37. A method for processing telephone numbers, comprising the steps of:
monitoring call initiation signals from a calling party;
receiving, responsive to the monitoring step, called party information;
producing, responsive to the called party information, a list of telephone numbers; and
selecting, responsive to the producing step, a target telephone number from the list of
25 telephone numbers.

2009004 030502

38. The method for processing telephone numbers of claim 37, wherein the call initiation signals contain an activation sequence.
39. The method for processing telephone numbers of claim 38, wherein the activation sequence comprises a code character selected from the group consisting of # and *.
- 5 40. The method for processing telephone numbers of claim 37, wherein the receiving step comprises the step of associating identification information with the calling party.
41. The method for processing telephone numbers of claim 40, wherein calling party identification information includes calling party location information.
- 10 42. The method for processing telephone numbers of claim 41, wherein the list of telephone numbers comprises valid telephone numbers in area code service areas within a predetermined scope responsive to calling party location information.
- 15 43. The method for processing telephone numbers of claim 42, wherein the list of telephone numbers comprises valid telephone numbers in area code service areas within a predetermined expanded-scope responsive to the calling party location information.
44. The method for processing telephone numbers of claim 42, wherein at least one pre-designated area code service area is considered to be within the predetermined scope.
- 20 45. The method for processing telephone numbers of claim 44, wherein at least one pre-designated area code is a toll-free service access code.
46. The method for processing telephone numbers of claim 37, wherein the producing step comprises the use of a telephone number database.
- 25

47. The method for processing telephone numbers of claim 46, wherein the telephone number database comprises dialing rules.

sub a4 48. The method for processing telephone numbers of claim 46, wherein the telephone number database comprises a calling party dialing list.

5 49. The method for processing telephone numbers of claim 37, further comprising the step of associating identification information with the calling party.

50. The method for processing telephone numbers of claim 49, wherein the identification information associated with the calling party comprises calling party location information.

10 51. The method for processing telephone numbers of claim 50, wherein the producing step is further responsive to dialing rules, a calling party dialing list, and the identification information associated with the calling party.

52. The method for processing telephone numbers of claim 46, wherein the telephone number database comprises any of information on valid area codes, information on the geographical areas associated with valid area codes, information on valid exchanges within valid area codes, and information on geographical areas associated with valid exchanges.

53. The method for processing telephone numbers of claim 52, wherein the telephone number database further comprises dialing rules.

20 54. The method for processing telephone numbers of claim 52, wherein the telephone number database further comprises a calling party dialing list.

55. The method for processing telephone numbers of claim 52, wherein the telephone number database further comprises information on valid telephone numbers within valid exchanges.

56. The method for processing telephone numbers of claim 52, wherein the telephone number database further comprises information on the relationship of each of a plurality of area code services areas.

5 57. The method for processing telephone numbers of claim 46, wherein the producing step further comprises the step of updating the telephone number database.

58. The method for processing telephone numbers of claim 37, further comprising the step of initiating, responsive to the selecting step, a call to the target telephone number.

10 59. A method for processing telephone numbers, comprising the steps of:
monitoring call initiation signals from a calling party;
receiving, responsive to the monitoring step, called party information and calling party identification information; and
producing, responsive to the called party information and the calling party identification
15 information, a target telephone number.

60. The method for processing telephone numbers of claim 59, wherein the calling party identification information includes calling party location information.

61. The method for processing telephone numbers of claim 59, wherein the producing step comprises the use of a telephone number database.

20 62. The method for processing telephone numbers of claim 61, wherein the telephone number database comprises dialing rules.

63. The method for processing telephone numbers of claim 62, wherein the telephone number database further comprises a calling party dialing list.

25 64. The method for processing telephone numbers of claim 63, wherein the producing step is further responsive to the dialing rules and the calling party dialing list.

65. The method for processing telephone numbers of claim 59, further comprising the step of initiating a call to the target telephone number.

66. A method for processing telephone numbers, comprising the steps of:

monitoring call initiation signals from a calling party;

5 receiving, responsive to the monitoring step, called party information and calling party identification information;

producing, responsive to the called party information and the calling party identification information, a list of telephone numbers; and

selecting, responsive to the producing step, a target telephone number from the list of

10 telephone numbers.

67. The method for processing telephone numbers of claim 66, wherein the calling party identification information includes calling party location information.

68. The method for processing telephone numbers of claim 66, wherein the producing step comprises the use of a telephone number database.

15 69. The method for processing telephone numbers of claim 68, wherein the telephone number database comprises dialing rules.

70. The method for processing telephone numbers of claim 69, wherein the telephone number database further comprises a calling party dialing list.

20 71. The method for processing telephone numbers of claim 70, wherein the producing step is further responsive to the dialing rules and the calling party dialing list.

72. The method for processing telephone numbers of claim 66, further comprising the step of initiating a call to the target telephone number.